2. Catalogue of Lepidoptera collected by Mr. S. N. Walter in the Island of Billiton. Rhopalocera by F. D. Godman and Osbert Salvin; Heterocera by H. Druce.

[Received May 17, 1878.]

(Plate XL.)

RHOPALOCERA.

That the Rhopalocerous fauna of Billiton should largely partake of the character of that of the surrounding islands of Sumatra, Java, and Borneo, and of the peninsula of Malacca was to be anticipated. Of the thirty-three species represented in this collection (which was made in Billiton by Mr. S. N. Walter, and has been sent to us by Lord Tweeddale for examination), all but one are well-known forms from one or all of these islands. The single exception, the *Myrina*, described below, has, so far as is at present known, its sole representative in a nearly allied species from Tenasserim, also described in the present paper.

The differential elements of the Butterfly faunas of Bórneo, Sumatra, Java, and Malacca have not yet been traced with sufficient precision to enable us to say to which of the four localities the island of Billiton has most affinity. With Borneo it is certainly very closely allied; but it possesses several species in common with Java, and others with Malacca. Unfortunately our series of Sumatran Butterflies is not very complete; but, so far as we can see, many species are also found in that island, geographically its nearest neighbour.

Fam. Nymphalidæ.

Subfam. Danainæ.

1. Hestia clara.

Hestia clara, Butl. Trans. Ent. Soc. ser. 3, v. p. 469.
? *Hestia leuconoe*, Druce, P. Z. S. 1873, p. 337.

A single female specimen, agreeing with Mr. Butler's types in the British Museum. The species also occurs in Borneo, whence we have an example of the same sex. Its occurrence in Java is doubtful.

2. Danais philomela.

Euplœa philomela, Zink. Nov. Act. Ac. Nat.-Cur. xv. p. 184, pl. 16. f. 17; Druce, P. Z. S. 1873, p. 337.

Agrees with Malaccan and Bornean examples.

3. Danais similis.

Papilio similis, Linn. Syst. Nat.
Danais similis, Druce, P. Z. S. 1873, p. 338.

Identical with Malaccan and Javan examples.

4. Danais juventa.

Papilio juventa, Cr. Pap. Ex. pl. 188. f. B.
Danais juventa, Druce, P. Z. S. 1873, p. 337.

Agrees with Bornean specimens.

5. Danais hegisippus.

Papilio hegisippus, Cr. Pap. Ex. t. 180. f. A.

Agrees with Malaccan specimens.

6. Danais chrysippus.

Papilio chrysippus, Linn. Cr. Pap. Ex. t. 118. f. B, C.

Identical with specimens of this widely dispersed species.

7. Euplœa menétriésii.

Euplœa ménétriésii, Feld. Wien. ent. Mon. iv. p. 398; Druce, P. Z. S. 1873, p. 338.

Agrees with specimens thus named in the British Musium.

8. Euplœa bremeri.

Euplœa bremeri, Feld. Wien. ent. Mon. iv. p. 398; Druce, P. Z. S. 1873, p. 338.

Found also in Borneo and Malacca.

9. Euplœa thoosa.

Trepsichrois thoosa, Hübn. Ex. Schmett. t. viii.

Agrees very well with Hübner's figure, being also identical with Malaccan specimens.

10. Euplœa mulciber.

Papilio mulciber, Cram. Pap. Ex. t. 127. f. C, D; Druce, P. Z. S. 1873, p. 338.

Also a Bornean species.

Subfam. Elymniinæ.

11. Elymnias nigrescens.

Elymnias nigrescens, Butl. P. Z. S. 1871, p. 520, t. 42. f. 1; Druce, P. Z. S. 1873, p. 340.

A female specimen agreeing with Bornean examples of the same sex.

12. Elymnias lais.

Papilio lais, Cr. Pap. Ex. t. 110. f. A, B.

Elymnias lais, Druce, P. Z. S. 1873, p. 340.

Also found in Borneo and Java.

Subfam. Morphinæ.

13. Amathusia phidippus.

Papilio phidippus, Linn. Syst. Nat.

Amathusia phidippus, Druce, P. Z. S. 1873, p. 340.

Both sexes of this widely ranging species.

14. Zeuxidia horsfieldi.

Zeuxidia horsfieldi, Feld. Voy. Nov. Lep. p. 460, t. 62. f. 4; Druce, P. Z. S. 1873, p. 340.

Agrees with Bornean specimens.

Subfam. Nymphalinæ.

15. Cynthia deione.

Cynthia deione, Erichs. Nov. Act. Ac. Nat.-Cur. xvi. Suppl. t. 50. f. 2, 2 *a*.

Cynthia arsinoe, Druce, P. Z. S. 1873, p. 342 (nec Cramer).

Agrees with this widely-ranging species, of which we have specimens from Java, Malacca, Borneo, and the Philippine Islands.

16. Junonia laomedia.

Papilio laomedia, Linn. Syst. Nat. i. p. 772.

Junonia laomedia, Druce, P. Z. S. 1873, p. 342.

A widely-distributed species, occurring throughout the Indo-Malayan subregion.

17. Junonia ida.

Papilio ida, Cr. Pap. Ex. t. 42. f. C, D.

Junonia ida, Druce, P. Z. S. 1873, p. 342.

Agrees with Javan, Bornean, and Philippine-Islands specimens.

18. Neptis aceris.

Papilio aceris, Lepechin, Tageb. d. Reise Russ. Reich. i. p. 203, t. 17. f. 5.

Neptis aceris, Druce, P. Z. S. 1873, p. 344.

A single specimen of this very widely-distributed species.

19. Tanaëcia, sp.?

A single specimen of a species of this genus which we have not been able to determine.

20. Adolias, sp.?

Agrees with a Malaccan specimen of an unnamed species in our collection. Others from the same locality in the British Museum, have a MS. name of Mr. Butler's attached to them.

21. Symphædra dirtea.

Papilio dirtea, Fabr. Ent. Syst. iii. p. 59.

Symphædra dirtea, Butl. P. Z. S. 1868, p. 613; Druce, P. Z. S. 1873, p. 346.

Adolias boisduvali, Bdv. Sp. Gén. t. 8. f. 2.

A male agreeing with Sumatran and Bornean examples.

22. Charaxes schreiberi.

Nymphalis schreiber, Godt. Enc. Méth. ix. p. 825.
Charaxes schreiberi, Druce, P. Z. S. 1873, p. 346.

Found also in Java and Borneo.

Fam. Lycænidæ.

23. Myrina nivea, sp. n. (Plate XL. figs. 3, 4.)

♀. Exp. 2·2 inches. Secondaries with projection at the anal angle and a long tail on the first median branch; outer margin slightly dentate, pure white; outer margin of primaries black, blending into a delicate blue in the apex, the blue colour extending along the costal margin; a black spot between the median branches of the secondaries and a faint black submarginal line on the same wings. Beneath pure white, both wings crossed with five concentric bands, consisting of confluent spots, each enclosed in a faint dark line; a submarginal black line to both wings; the black spot of the upper surface between the median branches of the secondaries is mostly blue; and there are two blue spots near the margin, one between the submedian nervure and the first median branch, and one at the anal angle.

Hab. Billiton Island.

Mus. nostr.

This beautiful species, of which there is only a single female specimen in the collection, seems to belong undoubtedly to the genus *Myrina*, as defined by Westwood (D. W. & H. Gen. Diurn. Lep. ii. p. 475). In coloration it is quite distinct from any hitherto described member of the genus. We have, however, since received from Mr. A. O. Hume an example of a closely allied species, which was taken at Meetan in Burma. This is also a female, and we describe it as follows:—

Myrina hiemalis. (Plate XL. figs. 5, 6.)

Exp. 2·2 inches. In shape exactly like *M. nivea*, the dark apex of the primaries more extensive and the inner edge of this dark mark with two prominent indentations instead of being simply curved; beneath, the bands of the wings are better defined, and the dark marginal lines of each band enclose a greyish space, whereas in *M. nivea* the inside of the spots forming the bands is white.

Hab. Meetan, Burma.

Mus. nostr.

Fam. Papilionidæ.

Subfam. Pierinæ.

24. Callidryas catilla.

Papilio catilla, Cr. Pap. Ex. t. 55. f. C, D.
Callidryas catilla, Druce, P. Z. S. 1873, p. 355.

A widely ranging species found in Borneo and elsewhere.

25. Terias, sp.?

A bad specimen.

26. Terias hecabe.

Papilio hecabe, Linn. Syst. Nat. i. p. 763.
Terias hecabe, Druce, P. Z. S. 1873, p. 354.
A widely ranging species, also found in Borneo.

Subfam. Papilioninæ.

27. Papilio antiphates.

Papilio antiphates, Cr. Pap. Ex. t. 72. f. A, B; Druce, P. Z. S. 1873, p. 357.
Agrees with Bornean specimens.

28. Papilio sarpedon.

Papilio sarpedon, Linn. Syst. Nat. i. p. 747; Druce, P. Z. S. 1873, p. 559.
A wide-ranging species, found in Borneo and Malacca.

29. Papilio eurypylus.

Papilio eurypylus, Linn. Syst. Nat. i. p. 754; Druce, P. Z. S. 1873, p. 357.
Agrees with Bornean examples.

30. Papilio pammon.

Papilio pammon, Linn. Syst. Nat. i. p. 746.
Papilio polytes, L. Druce, P. Z. S. 1873, p. 357.
The caudal appendage in Billiton specimens is but slightly developed; and in this respect they agree best with Javan examples.

31. Papilio iswara.

Papilio iswara, White, Entom. i. p. 280; Doubl. & Hew. Gen. D. Lep. t. 3. f. 1.
Agrees with a Malaccan specimen.

32. Papilio memnon.

Papilio memnon, Linn. Syst. Nat. i. p. 747; Wall. Trans. L. S. xxv. p. 47, pl. 1. figs. 2, 4.
A female agrees with Javan specimens and with figure 4 of Mr. Wallace's plate, and with Cramer's figure of his *P. achates*. A second female resembles figure 2 of Mr. Wallace's plate, except that the white band of the secondaries is slightly narrower. This form is represented by Cramer under the name *P. agenor*.

Fam. Hesperidæ.

33. Casyapa thrax.

Papilio thrax, Linn. Syst. Nat. i. p. 794.
Casyapa thrax, Druce, P. Z. S. 1873, p. 358.
Agrees with Indian examples.

HETEROCERA.

Fam. Sphingidæ.

Subfam. Chærocampinæ.

Chærocampa suffusa, Walk. List Lep. Brit. Mus. Het. pt. viii. p. 146 (1856).

The type was obtained at Hong-Kong. Mr. Moore tells me he has specimens from Borneo.

Fam. Lithosiidæ.

Hypsia silvandra, Cr.

Phalæna (Bombyx) silvandra, Cram. Pap. Exot. iv. pl. 369. f. D (1782).

Fam. Saturniidæ.

Antheræa billitonensis, Moore, n. sp.

Male. Upperside pale purplish ferruginous, suffused with grey on external borders; ocelli oval, defined by a narrow dusky line, blind, outer half bordered within by a narrow yellow line and a central transverse line: *fore wing* with the area within and below the cell brighter ferruginous; apex yellowish; an oblique discal, pale ferruginous, narrow lunular band, bordered within by a dusky lunular line and without by a straight dusky line; a dusky black streak crossing the middle of the cell, and another from its base to the hind margin: *hind wing* with the base brighter ferruginous; a dusky-bordered, pale yellowish, transverse, discal, sinuous band, the dusky border encircling the ocellus and terminating on abdominal margin above end of sinuous band. Body bright ferruginous.

Expanse $4\frac{1}{4}$ inches.

Hab. Billiton Island, Malay archipelago. In coll. H. Druce.

Nearest allied to *A. frithii*, from Darjiling.

Fam. Erebidæ.

Nyctipao crepuscularis.

Phalæna (Attacus) crepuscularis, Linn. Syst. Nat. 2811. 13; Clerck, Icon. pl. 53. f. 1–4; Drury, Ins. i. p. 37, pl. 20. f. 1, 2.

A species frequently sent from Hindostan.

Fam. Hypopyridæ.

Hypopyra feniseca.

Hypopyra feniseca, Guén. Noct. iii. 200. 1599 (1852).

In the British Museum, from Silhet.

Tribe Uranides.

Fam. Nyctalemonidæ.

Nyctalemon docile, Butler, in litt.

Very closely allied to *Nyctalemon hector*, White, from Borneo,

the principal difference being its larger size, broader white bands, and longer tails to the posterior wing. Mr. Butler's description has been in the hands of the Linnean Society for some time.

GEOMETRIDÆ.

Fam. ENNOMIDÆ.

ENNOMOS TESTACEARIA.

Ennomos testacearia, Moore, P. Z. S. 1867, p. 623.

EXPLANATION OF PLATE XL.

Figs. 1, 2. *Doleschallia comrii*, p. 646.
3, 4. *Myrina nivea*, p. 640.
5, 6. —— *hiemalis*, p. 640.

3. List of the Butterflies collected in Eastern New Guinea and some neighbouring Islands by Dr. Comrie during the Voyage of H.M.S. 'Basilisk.' By F. D. GODMAN and OSBERT SALVIN.

[Received May 17, 1878.]

(Plate XL.)

The small collection made by Dr. Comrie, of which we here give a list, was got together under many difficulties and pressure of official duties. It is therefore not surprising that the number of species it contains is not greater than it is. We make no apology for presenting this list to the Society, seeing that several of the places touched at by Captain Moresby's expedition were absolutely unknown as to their Butterfly-fauna before Dr. Comrie visited them. Amongst these we may specially mention the D'Entrecasteaux Islands, which lie some little way from the eastern shores of New Guinea. The result of a comparison of the Butterflies of these islands with those of the New-Guinea mainland shows that, so far as we can see at present, no difference can be said to exist. In fact these islands are (as far as their Butterflies are concerned) as essentially a portion of New Guinea as the Aru Islands are known to be, if not more so.

Family NYMPHALIDÆ.

Subfamily DANAINÆ.

DANAIS CITRINA.

Danais citrina, Feld. Voy. Nov. Lep. p. 350, t. 42. f. 5–7.
Danais gloriola, Butl. P. Z. S. 1866, p. 56.

D'Entrecasteaux Islands.

Agrees with specimens from the Aru Islands, whence both Dr. Felder's and Mr. Butler's types were obtained.